

What is claimed is:

1. A method of digital watermarking an image comprising:
5 adjusting the image in accordance with values in a first representation associated
with a printing process;
determining values to convey a digital watermark in the adjusted image;
adjusting the values in accordance with a second representation associated with the
printing process; and
10 combining the adjusted change values and the image to produce a digital
watermarked image.
2. The method of claim 1, wherein the first representation comprises a forward dot
gain curve.
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3. The method of claim 2, wherein the second representation comprises a backward
dot gain curve.
4. The method of claim 3 wherein the backward dot gain curve comprises an
20 inverse of the forward dot gain curve.
5. The method of claim 1 wherein the printing process comprises an offset printing
press.

6. The method of claim 1 wherein the image is watermarked using a scale to black technique.

7. The method of claim 1 wherein said image is watermarked using a scale to white
5 technique.

8. A method of steganographically hiding a signal in an image comprising:
determining change values to represent the signal in the image; and
altering color values of the image by an amount to achieve the change values,
10 wherein the amount includes a compensation for a variation in a relationship of an
input color value and at least one of ink and dye provided by a printing process to represent
the input color value, and
wherein the image includes the signal steganographically embedded therein when
printed with the printing process.

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9. The method of claim 8, wherein the printing process comprises an offset printing
process.

10. The method of claim 8, wherein the steganographically hiding comprises digital
20 watermarking.

11. The method of claim 8, further comprising printing the image, wherein the
printed image includes the signal steganographically embedded therein.

12. A method of processing an image to compensate for variation in a printing process, wherein the image includes a plurality of color values, said method comprising:

receiving a representation of a variation in a relationship of an input color value
5 and at least one of ink and dye provided by the printing process to represent the input color value;

determining change values needed to alter the image to accommodate a digital watermark embedded therein;

adjusting the change values with the representation; and
10 modifying the image with the adjusted change values to accommodate the digital watermark and to compensate for the variation.

13. The method of claim 12 wherein the printing process comprises an offset printing press.

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